



#8

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<110> Miki Dr., Brian L

Gijzen Dr., Matk

Miller Dr., Shea

Boutilier Dr., Kim

Hu., Ming

Bowman, LuAnn

Batchelor, Anthea

<120> Seed-Coat Promoters, Genes and Gene Products

<130> 1096.001C

<140> 09/673,333

<141> 1999-04-13

<150> PCT/CA99/00293

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<213> Glycine max

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Met Gly Ser Lys Val Val Ala Ser Val Ala Leu Leu Leu Ser Ile Asn

1

5

10

15

Ile Leu Phe Ile Ser Met Val Ser Ser Ser Ser His Tyr Asp Pro Gln

20

25

30

Pro Gln Pro Ser His Val Thr Ala Leu Ile Thr Arg Pro Ser Cys Pro

35

40

45

Asp Leu Ser Ile Cys Leu Asn Ile Leu Gly Gly Ser Leu Gly Thr Val

50

55

60

Asp Asp Cys Cys Ala Leu Ile Gly Gly Leu Gly Asp Ile Glu Ala Ile

65

70

75

80

Val Cys Leu Cys Ile Gln Leu Arg Ala Leu Gly Ile Leu Asn Leu Asn

85

90

95

Arg Asn Leu Gln Leu Ile Leu Asn Ser Cys Gly Arg Ser Tyr Pro Ser

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105

110

Asn Ala Thr Cys Pro Arg Thr

115

<210> 11

<211> 286

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Asn Ala Ala Leu Thr Pro Arg His Tyr Trp Glu Thr Met Leu Pro Arg

1

5

10

15

Thr Pro Leu Pro Lys Ala Ile Thr Glu Leu Leu Ser Leu Glu Ser Arg

20

25

30

Ser Ile Phe Glu Tyr Ala Gly Asn Asp Asp Gln Ser Glu Ser Arg Ser

35

40

45

Ile Leu Gly Tyr Ala Gly Tyr Asn Gln Asp Glu Asp Asp Val Ser Lys

50

55

60

His Asn Ile Gln Ile Phe Asn Arg Leu Phe Phe Leu Glu Glu Asp Leu

65

70

75

80

Arg Ala Gly Lys Ile Phe Asn Met Lys Phe Val Asn Asn Thr Lys Ala

85

90

95

Thr Val Pro Leu Leu Pro Arg Gln Ile Ser Lys Gln Ile Pro Phe Ser

100

105

110

Glu Asp Lys Lys Lys Gln Val Leu Ala Met Leu Gly Val Glu Ala Asn

115

120

125

Ser Ser Asn Ala Lys Ile Ile Ala Glu Thr Ile Gly Leu Cys Gln Glu

130

135

140

Pro Ala Thr Glu Gly Glu Arg Lys His Cys Ala Thr Ser Leu Glu Ser

145

150

155

160

Met Val Asp Phe Val Val Ser Ala Leu Gly Lys Asn Val Gly Ala Phe

165

170

175

Ser Thr Glu Lys Glu Arg Glu Thr Glu Ser Gly Lys Phe Val Val Val

180

185

190

Lys Asn Gly Val Arg Lys Leu Gly Asp Asp Lys Val Ile Ala Cys His

195

200

205

Pro Met Ser Tyr Pro Tyr Val Val Phe Gly Cys His Leu Val Pro Arg

210	215	220	
Ser Ser Gly Tyr Leu Val Arg Leu Lys Gly Glu Asp Gly Val Arg Val			
225	230	235	240
Lys Ala Val Val Ala Cys His Arg Asp Thr Ser Lys Trp Asp His Asn			
	245	250	255
His Gly Ala Phe Lys Val Leu Asn Leu Lys Pro Gly Asn Gly Thr Val			
260	265	270	
Cys His Val Phe Thr Glu Gly Asn Leu Leu Trp Leu Pro Asn			
275	280	285	

<210> 12

<211> 770

<212> PRT

<213> Glycine max

<400> 12

Met Lys Gly Asn Asn Thr Leu Leu Leu His Leu Phe Tyr Thr Thr Leu

1 5 10 15

Phe Leu Phe Leu Val Val Ser Ser Ser Ser Ser Thr Gly Asn Glu Ser

20 25 30

Asn Asp Asp Thr Asn Ser Lys Glu Val Tyr Ile Val Tyr Met Gly Ala

35 40 45

Ala Asp Ser Thr Lys Ala Ser Leu Lys Asn Glu His Ala Gln Ile Leu

50 55 60

Asn Ser Val Leu Arg Arg Asn Glu Asn Ala Leu Val Arg Asn Tyr Lys

65 70 75 80

His Gly Phe Ser Gly Phe Ala Ala Arg Leu Ser Lys Glu Glu Ala Asn

85 90 95

Ser Ile Ala Gln Lys Pro Gly Val Val Ser Val Phe Pro Asp Pro Ile

100

105

110

Leu Lys Leu His Thr Thr Arg Ser Trp Asp Phe Leu Lys Ser Gln Thr

115

120

125

Arg Val Asn Ile Asp Thr Lys Pro Asn Thr Leu Ser Gly Ser Ser Phe

130

135

140

Ser Ser Ser Asp Val Ile Leu Gly Val Leu Asp Thr Gly Ile Trp Pro

145

150

155

160

Glu Ala Ala Ser Phe Ser Asp Lys Gly Phe Gly Pro Val Pro Ser Arg

165

170

175

Trp Lys Gly Thr Cys Met Thr Ser Lys Asp Phe Asn Ser Ser Cys Cys

180

185

190

Asn Arg Lys Ile Ile Gly Ala Arg Phe Tyr Pro Asn Pro Glu Glu Lys

195

200

205

Thr Ala Arg Asp Phe Asn Gly His Gly Thr His Val Ser Ser Thr Ala

210

215

220

Val Gly Val Pro Val Ser Gly Ala Ser Phe Tyr Gly Leu Ala Ala Gly

225

230

235

240

Thr Ala Arg Gly Gly Ser Pro Glu Ser Arg Leu Ala Val Tyr Lys Val

245

250

255

Cys Gly Ala Phe Gly Ser Cys Pro Gly Ser Ala Ile Leu Ala Gly Phe

260

265

270

Asp Asp Ala Ile His Asp Gly Val Asp Ile Leu Ser Leu Ser Leu Gly

275

280

285

Gly Phe Gly Gly Thr Lys Thr Asp Leu Thr Thr Asp Pro Ile Ala Ile

290	295	300	
Gly Ala Phe His Ser Val Gln Arg Gly Ile Leu Val Val Cys Ala Ala			
305	310	315	320
Gly Asn Asp Gly Glu Pro Phe Thr Val Leu Asn Asp Ala Pro Trp Ile			
	325	330	335
Leu Thr Val Ala Ala Ser Thr Ile Asp Arg Asp Leu Gln Ser Asp Val			
340	345	350	
Val Leu Gly Asn Asn Gln Val Val Lys Gly Arg Ala Ile Asn Phe Ser			
355	360	365	
Pro Leu Leu Asn Ser Pro Asp Tyr Pro Met Ile Tyr Ala Glu Ser Ala			
370	375	380	
Ala Arg Ala Asn Ile Ser Asn Ile Thr Asp Ala Arg Gln Cys His Pro			
385	390	395	400

Asp Ser Leu Asp Pro Lys Lys Val Ile Gly Lys Ile Val Val Cys Asp

405

410

415

Gly Lys Asn Asp Ile Tyr Tyr Ser Thr Asp Glu Lys Ile Val Ile Val

420

425

430

Lys Ala Leu Gly Gly Ile Gly Leu Val His Ile Thr Asp Gln Ser Gly

435

440

445

Ser Val Ala Phe Tyr Tyr Val Asp Phe Pro Val Thr Glu Val Lys Ser

450

455

460

Lys His Gly Asp Ala Ile Leu Gln Tyr Ile Asn Ser Thr Ser His Pro

465

470

475

480

Val Gly Thr Ile Leu Ala Thr Val Thr Ile Pro Asp Tyr Lys Pro Ala

485

490

495

Pro Arg Val Gly Tyr Phe Ser Ser Arg Gly Pro Ser Leu Ile Thr Ser

500

505

510

Asn Val Leu Lys Pro Asp Ile Ala Ala Pro Gly Val Asn Ile Leu Ala

515

520

525

Ala Trp Phe Gly Asn Asp Thr Ser Glu Val Pro Lys Gly Arg Lys Pro

530

535

540

Ser Leu Tyr Arg Ile Leu Ser Gly Thr Ser Met Ala Thr Pro His Val

545

550

555

560

Ser Gly Leu Ala Cys Ser Val Lys Arg Lys Asn Pro Thr Trp Ser Ala

565

570

575

Ser Ala Ile Lys Ser Ala Ile Met Thr Ser Ala Ile Gln Asn Asp Asn

580

585

590

Leu Lys Gly Pro Ile Thr Thr Asp Ser Gly Leu Ile Ala Thr Pro Tyr

595

600

605

Asp Tyr Gly Ala Gly Ala Ile Thr Thr Ser Glu Pro Leu Gln Pro Gly

610

615

620

Leu Val Tyr Glu Thr Asn Asn Val Asp Tyr Leu Asn Tyr Leu Cys Tyr

625

630

635

640

Asn Gly Leu Asn Ile Thr Met Ile Lys Val Ile Ser Gly Thr Val Pro

645

650

655

Glu Asn Phe Asn Cys Pro Lys Asp Ser Ser Ser Asp Leu Ile Ser Ser

660

665

670

Ile Asn Tyr Pro Ser Ile Ala Val Asn Phe Thr Gly Lys Ala Asp Ala

675

680

685

Val Val Ser Arg Thr Val Thr Asn Val Asp Glu Glu Asp Glu Thr Val

690

695

700

Tyr Phe Pro Val Val Glu Ala Pro Ser Glu Val Ile Val Thr Leu Phe

705

710

715

720

Pro Tyr Asn Leu Glu Phe Thr Thr Ser Ile Lys Lys Gln Ser Tyr Asn

725

730

735

Ile Thr Phe Arg Pro Lys Thr Ser Leu Lys Lys Asp Leu Phe Gly Ser

740

745

750

Ile Thr Trp Ser Asn Asp Lys Tyr Met Val Arg Ile Pro Phe Val Leu

755

760

765

Thr Lys

770